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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,926	01/24/2002	Justin F. Gaynor	M-12018 US	4011

7590

02/06/2003

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EXAMINER

MOORE, KARLA A

ART UNIT

PAPER NUMBER

1763

DATE MAILED: 02/06/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/056,926

Applicant(s)

GAYNOR, JUSTIN F.

Examiner

Karla Moore

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01/09/03
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) 1-6 and 22-47 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 May 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, rather than Group II, in Paper No. 8 is acknowledged. The traversal is on the ground(s) that search and examination regarding the entire application can be made without serious burden. This is not found persuasive because the claimed inventions of Groups I and II are an apparatus and a method for using the apparatus, respectively, which are classified in two different classes. The search for the two separate inventions would be completely different.

The requirement is still deemed proper and is therefore made FINAL.

2. Applicant's election with traverse of Group IB, rather than Group IA, in Paper No. 8 is also acknowledged. The traversal is on the ground(s) that search and examination regarding all alleged species can be made without serious burden. This is not found persuasive because each of the species recites mutually exclusive characteristics. For instance, the species represented by the claims of Group IA comprises separate inlets for a silylating agent, an oxidizing agent and an etching gas. While, the species represented by the claims of Group IB comprises a wafer in/out chamber. Neither of these elements is recited in the claims representing the other species, therefore, the searches for each of the species would be different.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 8-9, 12-14 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,882,008 to Garza et al.

5. Garza et al. disclose a cluster tool for semiconductor processing, comprising: an ash/silylation chamber (Figure 1, 106), said ash silylation chamber configured to perform an ashing process (column 5, rows 22-37) and a silylation process (column 5, rows 16-21); and a wafer in/out chamber (Figure 1, 10), configured to introduce one or more wafers into said cluster tool.

6. With respect to claims 9 and 12, Garza et al. disclose that the apparatus may further comprise plural process chambers similar to the chamber described above which may be an etch module (column 5, rows 39-43 and column 3, rows 42-46).

7. With respect to claim 13, the ash/silylation chamber is also configured to perform an etch process (column 5, rows 39-43), so, that the chamber may be characterized as an etch/ash/silylation chamber as claimed.

8. With respect to claim 14, as mentioned above, the etch/ash/silylation chamber may further comprise additional processing chambers (column 3, rows 42-46).

9. With respect to claim 17, the etch/ash/silylation chamber of Garza et al. may also be characterized as an organic removal/silylation chamber, configured to remove organic sacrificial material, such as HMDS (column 5, rows 56-61).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 10-11, 15-16 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garza et al. as applied to claims 8-9, 12-14 and 17 above, and further in view of U.S. Patent No. 5,171,939 to Moffat.

12. Garza et al. disclose the invention substantially as claimed and as described above.

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13. However, Garza et al. fail to teach a cap deposition module chosen from the group consisting of a PECVD module or a spin-on deposition module.

14. Moffat discloses a cluster apparatus designed to perform manufacturing tasks specifically related to photoresist processing in a single, compact apparatus and including a spin-on deposition module for the purpose of depositing a photoresist layer on a wafer (abstract and column 4, rows 14 and 15).

15. It would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention was made to have provided a spin-on module deposition module in Garza et al. for depositing a photoresist layer as taught by Moffat.

16. With respect to the mention of specific materials in claims 17-21, the courts have ruled expressions relating the apparatus to the contents thereof during an intended operation are of no significance in determining the patentability of the apparatus claim. Ex parte Thibault, 164 USPQ 666, 667 (Bd. App. 1969). In the present case, the prior art apparatus would be capable of the deposition as claimed.

Conclusion

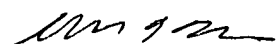
17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 703.305.3142. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Mills can be reached on 703.308.1633. The fax phone numbers for the organization where this application or proceeding is assigned are 703.872.9310 for regular communications and 703.872.9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.0661.

km
January 30, 2003


BENJAMIN L. UTECH
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